

ARTIFICIAL INTELLIGENCE IN DECISION MAKING: TRANSFORMING ORGANIZATIONAL INTELLIGENCE AND PERFORMANCE

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ABSTRACT

Artificial Intelligence (AI) has become a pivotal force in transforming the decision-making processes across sectors by integrating data-driven insights with advanced computational capabilities. As organizations continue to operate in increasingly complex, dynamic, and uncertain environments, AI tools provide structured, predictive, and adaptive solutions that enhance managerial and operational decisions. This article explores the evolving role of AI in decision making, highlighting its capabilities in improving accuracy, efficiency, and strategic foresight. It also examines the challenges associated with AI adoption, including data privacy, algorithmic bias, and the need for ethical frameworks. The discussion emphasizes how AI-driven decision models can support better strategic outcomes while complementing human judgment rather than replacing it. The article concludes by reflecting on the future directions of AI-enhanced decision systems and the importance of responsible implementation.

Keywords: Artificial Intelligence, Decision Making, Machine Learning, Predictive Analytics, Automation, Organizational Strategy, Data-Driven Decisions, AI Ethics, Intelligent Systems, Business Intelligence.

INTRODUCTION

Artificial Intelligence has emerged as one of the most transformative technologies influencing modern organizational decision making. In an era where data volumes are expanding at unprecedented rates, traditional methods of evaluation and strategic formulation are no longer sufficient to meet the demands of competitive global environments. AI offers an advanced approach by enabling machines to learn from data, recognize patterns, make predictions, and support complex reasoning tasks that previously depended solely on human expertise. The integration of AI into decision-making frameworks is reshaping industries such as healthcare, finance, education, manufacturing, and public administration, making decisions more precise, timely, and evidence-based.

AI-driven decision systems function by processing vast and diverse data sources, applying algorithms to identify insights that may not be immediately perceptible to human decision makers. Machine learning models can forecast trends, recommend actions, and detect anomalies with remarkable accuracy, often outperforming traditional statistical methods. This capability allows organizations to respond proactively to emerging challenges, optimize resource allocation, personalize services, and improve overall performance. For example, predictive analytics in finance enables institutions to identify credit risks and fraud patterns, while AI applications in healthcare support early diagnosis and treatment planning through analysis of medical images and patient histories.

Despite the significant advantages, the deployment of AI in decision making is accompanied by important considerations. Issues related to data quality, algorithmic transparency, privacy, and bias pose risks that can undermine trust and reliability. Ethical frameworks and governance mechanisms are crucial to ensure that AI systems operate fairly and responsibly. Moreover, the relationship between AI and human judgment must remain complementary. While AI enhances the capacity for rational and objective decision making, human oversight is essential to interpret contextual factors, account for emotional intelligence, and address ethical dilemmas. The interplay of human and artificial intelligence forms the basis of augmented decision making, where technology strengthens but does not replace human expertise.

As AI continues to evolve, its applications in decision making will expand, offering more sophisticated tools for scenario analysis, simulation, real-time monitoring, and adaptive learning. Organizations that integrate AI strategically are likely to gain competitive advantages through improved agility, accuracy, and innovation. However, achieving these outcomes requires investment in digital skills, robust data infrastructure, and ethical governance. AI represents not only a technological upgrade but a fundamental shift in how decisions are conceptualized and executed within modern systems.

CONCLUSION

Artificial Intelligence has fundamentally reshaped the decision-making landscape by introducing capabilities that leverage data, algorithms, and computational intelligence to support more accurate, efficient, and strategic choices. While its benefits are wide-ranging—from predictive insights to automation and optimization—the successful adoption of AI requires careful consideration of ethics, transparency, and human oversight. AI should be viewed as a collaborative partner that augments human decision making rather than replacing it. As organizations navigate increasingly complex environments, AI will continue to serve as a vital tool that enhances strategic thinking, operational performance, and long-term value creation. The future of decision making lies in balancing technological innovation with responsible implementation to ensure sustainable and informed outcomes.

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